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### REMARKS

Claims 14-15, 19-20, and 23 have been canceled. Claims 1-13, 16-18, 21-22, and 24-34 remain pending in the application. Claims 1-12 have been withdrawn from consideration. Applicants amend claim 13, 18, and 22 for clarification. No new matter has been added.

Applicants acknowledge, with appreciation, the Examiner's withdrawal, in the Advisory Action, of the 35 U.S.C. § 102(e) rejection based on U.S. Patent Application Publication No. 2002/0008525 to Seagreaves et al. in view of Applicants' perfection of their priority claim.

Claims 13, 16-18, 21-22, and 24-34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of U.S. Patent No. 4,756,007 to Qureshi et al. Applicants amend claims 13, 18, and 22 in a good faith effort to clarify the invention as distinguished from the cited references, and respectfully traverse the rejection.

In the Advisory Action dated April 7, 2006, the Examiner cited Fig. 37 and its corresponding description on page 12 of the specification as alleged AAPA that discloses the claimed features of the transmitting unit. The cited portions of the specification describe as follows:

“[a]n internal clock 230 of the device is frequency-divided to 400 Hz by a frequency divider 240 and the resulting signal is input to a phase discriminator 250. The 400-Hz signal has its phase matched beforehand to that of a 400-Hz signal (ISDN 400-Hz signal) on the office side by 400-Hz information transmitted from the office side via demodulator 210.” Page 12, lines 6-12 of the specification.

The cited portions of alleged AAPA merely describe detecting S/N ratios at respective NEXT and FEXT intervals on a subscriber side. Therefore, they do not disclose or suggest the claimed feature of “inserting timing information, which specifies an interval in which effects of crosstalk from said second line are received, into a training symbol sequence.” Correspondingly,

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the cited portions of alleged AAPA do not disclose the office side transmitting the timing information to the subscriber side so that the subscriber side can determine a transmit interval for upstream data and a receive interval for downstream data. Nor do the cited portions of Qureshi et al.

Qureshi et al. describe a training sequence for dial-up modems, but do not disclose timing information, which specifies an interval in which effects of crosstalk from said second line are received, being incorporated in a training symbol sequence for training carried out before data communication.

Applicants respectfully reiterate that the Examiner has failed to establish a prima facie case of obviousness in that the Examiner does not provide any suggestion or motivation in AAPA and Qureshi et al. for the proposed combination of these references. In the final Office Action and in the Advisory Action, the Examiner merely stated that “[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to use Qureshi’s method for timing distribution in AAPA’s system ‘in order to ...’” Page 2 of the Advisory Action citing paragraph 14 of the final Office Action. Applicants, again, refer to MPEP § 2143.01 (IV),

“[a] statement that modifications of the prior art to meet the claimed invention would have been ‘well within the ordinary skill of the art at the time the claimed invention was made’ because the references relied upon teach that all aspects of the claimed invention were individually known in the art is *not* sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references.” (citing *Ex parte Levensgood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993)). (Underlining as cited, emphasis added)

Indeed, the Examiner still has not cited any prior art providing the requisite motivation or suggestion to combine the subscriber side S/N ratio detection described in the cited portions of alleged AAPA with the dial-up modem technique described in Qureshi et al. Thus, even

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assuming, arguendo, that all aspects of the claimed invention is disclosed or suggested in the cited references, the Examiner has still failed to meet his "initial burden of factually supporting any *prima facie* conclusion of obviousness." MPEP § 2142.

Furthermore, not all aspects of the claimed invention are disclosed or suggested in the cited references. Again, the portions of alleged AAPA cited by the Examiner in the Advisory Action, at most, suggest a general synchronization for S/N ratio detection. Thus, even assuming, arguendo, that it would have been obvious to one skilled in the art to combine the references, the combination would, at most, have suggested a training signal for general synchronization or for determining a transmission speed of a dial-up modem. Such a combination would still have failed to disclose or suggest,

"incorporating timing information, which specifies an interval in which effects of crosstalk from a neighboring line are received, in a training symbol sequence at time of training carried out prior to data communication; and

transmitting the training symbol sequence in which the timing information is incorporated from the device in the office side to the device on the subscriber side so that the subscriber side can determine a transmit interval for upstream data and a receive interval for downstream data,

wherein the timing information is incorporated in the training symbol sequence by changing the phase between adjacent training symbols by the device on the office side and a phase-change point in the training symbol sequence is detected by the device on the subscriber side and a timing which is a set time before or a set time after the phase-change detection time is adopted as the start timing of said interval," as recited in amended claim 13. (Emphasis added)

Accordingly, Applicants respectfully submit that claim 13, together with claims 16-17 dependent therefrom, is patentable over AAPA and Qureshi et al., separately and in combination, for at least the foregoing reasons. Independent claims 18, 22, 24-27, and 31 include features that correspond to those of claim 13 cited and discussed above, and are, therefore, together with

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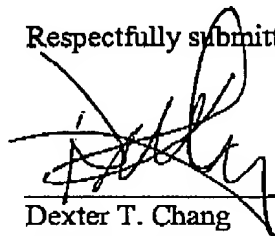
claims 21, 28-30, and 32-34 dependent therefrom, respectively, patentable over the cited references for at least the same reasons.

The above statements on the disclosures in the cited references represent the present opinions of the undersigned attorney. The Examiner is respectfully requested to specifically indicate those portions of the respective reference that provide the basis for a view contrary to any of the above-stated opinions.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper, not fully covered by an enclosed check, may be charged on Deposit Account 50-1290.

Respectfully submitted,

  
Dexter T. Chang  
Reg. No. 44,071

CUSTOMER NO.: 026304  
Telephone No.: (212) 940-6384  
Fax No.: (212) 940-8986/87  
Docket No.: 100807-16878 (FUSA 17.792)  
DTC:bf

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